

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§ 1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap.21, §§26-53),

**Tweave, Inc.  
P.O. Box AV  
138 Barrows Street  
Norton, MA 02766**

is authorized to discharge from the facility located at

**Tweave, Inc.  
138 Barrows Street  
Norton, MA 02766**

to receiving waters named

**Wading River (Taunton River Watershed - MA62)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the date of signature.

This permit and the authorization to discharge expires at midnight, five (5) years from the effective date.

This permit supercedes the permit issued August 9, 2000.

This permit consists of 8 pages in PART I including effluent limitations, monitoring requirements, Attachments A & B and 35 pages in PART II including General Conditions and Definitions.

Signed this 20<sup>th</sup> day of January, 2005

/s/

SIGNATURE ON FILE

Linda M. Murphy  
Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
Boston, Massachusetts

Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, Massachusetts

## PART I

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number <b>001</b> , treated process wastewater to the Wading River. Such discharges shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.						
<u>EFFLUENT CHARACTERISTIC</u>	<u>EFFLUENT LIMITS</u>				<u>MONITORING REQUIREMENTS</u>	
	Mass-based Limits (lbs/day)		Concentration-based limits (mg/l)			
PARAMETER	<u>AVERAGE MONTHLY</u>	<u>MAXIMUM DAILY</u>	<u>AVERAGE MONTHLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE TYPE<sup>2</sup></u>
FLOW	***	***	8,000 gpd	10,000 gpd	Continuous <sup>1</sup>	Recorder
BOD <sub>5</sub>	1.34	2.5	20	30	1/MONTH	Composite <sup>3</sup>
TSS	1.34	2.5	20	30	1/MONTH	Composite <sup>3</sup>
COD	27	50	400	600	1/QUARTER	Composite <sup>3</sup>
pH	6.5-8.3 SU (See Permit Page 5, Paragraph I.A.1.b)				1/MONTH	Grab
Oil & Grease	***	***	***	15	1/QUARTER	Grab
Total Sulfides	0.17	0.34	2.5	4.1	1/YEAR	Grab
Total Phosphorus	***	***	***	Report	1/MONTH	Grab
Total Kjeldahl Nitrogen	***	***	***	Report	1/MONTH	Composite <sup>3</sup>
Total Nitrate	***	***	***	Report	1/MONTH	Composite <sup>3</sup>
Total Nitrite	***	***	***	Report	1/MONTH	Composite <sup>3</sup>
Total Phenols	0.040	0.060	0.6	0.72	1/YEAR	Grab
Total Chromium	0.067	0.12	1.0	1.5	1/YEAR	Composite <sup>3</sup>

Total Copper	0.029	0.032	0.35	0.39	1/QUARTER	Composite <sup>3</sup>
Total Zinc	0.067	0.12	1.0	1.5	1/QUARTER	Composite <sup>3</sup>
Whole Effluent Toxicity <sup>4,5,6</sup>	***	***	LC50 <sub>50</sub> ≥ 100%		1/QUARTER	Composite <sup>3</sup>

Footnotes:

1. The flow shall be continuously measured and recorded using a flow meter and totalizer.
2. All required effluent samples shall be collected at the outlet of the sand filter bed and prior to mixing with other sources. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 10-hour composites unless specified as a grab sample in 40 CFR §136. Sampling must be representative and done at the same time each day.
3. A 10-hour composite sample will consist of at least ten (10) grab samples taken during one calendar day. (This sampling regiment is based on the facility's continuous discharge during the 10-hour/day, 4-day /week operations schedule.)
4. The permittee is required to conduct Whole Effluent Toxicity (WET) testing following EPA Region I Protocols. The test species are *Ceriodaphnia dubia* and *Pimphales promelas*. A cover letter indicating the sampling location shall be submitted with the test results. The test results shall be submitted by the last day of the month following completion of the test. A test must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit. This permit may be reopened based on WET testing results indicating that one species is consistently more sensitive (at least four successful tests), results of the Toxicity Reduction Evaluation (TRE) (required by the previous permit) or to include specific effluent limitations for toxic parameters.

Test Dates Second Week in	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>
February May August November	March 31 June 30 September 30 December 31	<i>Ceriodaphnia dubia</i> <i>Pimphales promelas</i>	≥ 100%

5. The acute Whole Effluent Toxicity test limit is LC<sub>50</sub> equal to 100%. The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more that a 50% mortality rate.
6. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment B Section IV., DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment B**, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance document is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment B**. The "Guidance Document" has been sent to all permittees with their annual set of DMRs and Revised Updated

Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment B**.

Part I.A.1. (continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
  - b. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 and not more than 0.5 units outside of the background range. There shall be no change from background conditions that would impair any use assigned to this class.
  - c. The discharge shall not cause objectionable discoloration of the receiving waters.
  - d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
  - e. The permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.
2. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 Code of Federal Regulations (CFR) §122.42):
  - a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    - (1) One hundred micrograms per liter (100 ug/L);
    - (2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
    - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
  - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"

- (1) Five hundred micrograms per liter (500 ug/L);
  - (2) One milligram per liter (1 mg/L) for antimony;
  - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
  - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
3. No components of the effluent shall result in any demonstrable harm to aquatic life or violate any water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards, with the permittee being so notified.
4. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (d), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
  - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
  - b. Controls any pollutants not limited in the permit.

**B. PHOSPHORUS LOADING EVALUATION AND REDUCTION PLAN**

The permittee shall undertake the following steps to reduce phosphorus loading from the facility to the Wading River. The permittee is required to do the following:

1. **During the first six months following the effective date of the permit**, the permittee shall implement a phosphorus monitoring program and complete a loading analysis sufficient to characterize loadings and sources of phosphorus into the facility as well as loadings from the facility to the Wading River. **The results of this analysis shall be submitted to EPA and DEP within 60 days after the completion of the six (6) month monitoring program.**
2. **Within 9 months of the effective date of the permit**, the permittee shall prepare a plan detailing modifications to the existing facility and/or internal processes necessary to reduce effluent phosphorus concentrations to 1.0 mg/l. **The plan shall be implemented with 1 year of the effective date of the permit.**

**B. MONITORING AND REPORTING**

1. Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Form(s) postmarked no later than the 15<sup>th</sup> day of the following month.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

U.S. Environmental Protection Agency  
Water Technical Unit (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114-8127

The State Agency is:

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, Massachusetts 02347

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention  
Industrial Wastewater Section  
1 Winter Street  
Boston, MA 02108

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, Massachusetts 01608

## **C. STATE PERMIT CONDITIONS**

1. This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and

constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.

2. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.